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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,286	11/26/2003	Jong-Won Seok	51876P426	1161

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EXAMINER
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HONG, HYUN J

ART UNIT	PAPER NUMBER
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2426

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/724,286	<b>Applicant(s)</b> SEOK ET AL.	
	<b>Examiner</b> Hyun J. Hong	<b>Art Unit</b> 2426	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-8 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8 and 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

This Office Action is in response to an Amendment filed 04/27/10. Claims 1-2, 5-8, 11-13 are pending.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5-8, 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezaki (US 2002/0120574) in view of Levy (US 7,224,819) in view of Akins (US 6,526,508).

**Regarding claim 1, 7, 13,** Ezaki discloses a broadcasting server system for protecting and managing digital broadcasting contents, comprising:

A control means for generating access control information and a control word based on subscriber information, the access control information including entitlement control message and entitlement management message, the access control information being separate from the control word ([0172]);

An additional data generation means for generating additional data including use control metadata, tool information metadata, and content purchase information metadata to protect and manage the digital broadcasting contents ([0025, 0070]);

A media encoding means for compressing the A/V media signal ([0102]);

An encrypting means for encrypting the compressed A/V media signal ([0016]);

A multiplexing means for receiving and multiplexing the compressed and encrypted A/V media signal to thereby output a media transport stream ([0138]);

A re-multiplexing means for receiving and re-multiplexing the media transport stream, the additional data and the access control information to thereby output a re-multiplexed signal ([0142]);

A scrambling means for scrambling the re-multiplexed signal by using the control word ([0092]);

Ezaki does not disclose a watermarking means for receiving an identification of a broadcasting content, which is referred to as a content ID, and the use control metadata, and watermarking an A/V media signal by using the content ID and the use control metadata as watermarks.

However, Levy discloses receiving an identification of a broadcasting content, which is referred to as a content ID, and the use control metadata, and watermarking an A/V media signal by using the content ID and the use control metadata as watermarks (col. 13 lines 55-67). It would have been obvious to combine the watermarking of Levy into the user control system of Ezaki. This would allow broadcasting providers to include copyright control data directly into their broadcast media.

Ezaki in view of Levy does not specifically disclose CAT, use control metadata including copy control information, broadcasting flag, and retention information, wherein the content ID is abstracted and used for determining whether a content is an unlawful broadcasting content when the broadcasting content is distributed unlawfully, or the

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content ID is abstracted and used for determining whether a content that are broadcasted currently is authentic or not after monitoring; wherein the use control metadata include the CCI, the BF, and the RI, determines from the CCI whether a broadcasting content can be copied freely, copied one time only and never copied, identifies from the BF whether the content is a broadcasting content, and indicates in the RI the length of time that the broadcasting content can remain stored in a hard disk of a receiver.

However, Akins discloses CAT (fig. 7); use control metadata including copy control information (col. 31 line 20-21), broadcasting flag (col. 31 line 15 *If event is active it is being broadcasted*), and retention information (fig. 19 "latest end"), wherein the content ID is abstracted and used for determining whether a content is an unlawful broadcasting content when the broadcasting content is distributed unlawfully, or the content ID is abstracted and used for determining whether a content that are broadcasted currently is authentic or not after monitoring (col. 13 lines 18-40); wherein the use control metadata include the CCI, the BF, and the RI, determines from the CCI whether a broadcasting content can be copied freely (col. 31 line 20-21), copied one time only and never copied, identifies from the BF whether the content is a broadcasting content (col. 31 line 15), and indicates in the RI the length of time that the broadcasting content can remain stored in a hard disk of a receiver (fig. 19 "latest end"). It would have been obvious to combine the conditional access information of Akins into the conditional access system of Ezaki in view of Levy. This would enable providers to set rules on how their content is stored and copied.

**Regarding claim 2, 8,** Ezaki discloses a purchase result management means for managing broadcasting content purchase result of a user ([0025]);

A monitoring result management means for managing broadcasting content monitoring result ([0025]);

**Regarding claim 5, 11,** Ezaki discloses wherein the tool information metadata include:

Protection and management tool information on the protection and management tools used for protecting and managing the broadcasting content ([0025]);

Decrypting information needed for decrypting the broadcasting content to which the protection and management tools are applied, the decrypting information including encrypted transport stream information ([0030]);

Location information on locations to which the protection and management tools should be applied ([0028]);

Replaceable tool information on kinds of tools that can be replaced; and tools ([0028]);

Ezaki does not disclose watermarking information.

However, Levy discloses watermarking information (col. 13 lines 55-67). It would have been obvious to combine the watermarking of Levy into the user control system of Ezaki. This would allow broadcasting providers to include copyright control data directly into their broadcast media.

**Regarding claim 6, 12,** Ezaki discloses wherein the content purchase information metadata include purchase conditions used when the user purchases the broadcasting content, and a list of contents that can be purchased ([0013]).

### ***Response to Arguments***

In response to applicant's arguments:

The Examiner alleges that Ezaki discloses "generating access control information and a control word based on subscriber information, the access control information including CAT, entitlement control message (ECM) and entitlement management message (EMM)," as recited in claims 1, 7, and 13, citing Ezaki, paragraph [0172]. Applicant respectfully disagrees and submits that Ezaki, paragraph [0172] merely states:

"The rights processing metadata contains an ECM (Entitlement Control Message) and an EMM (Entitlement Management Message). A decryption section 482 decrypts the EMM using a master key Km recorded on the BS-CAS IC card in order to obtain a work key and contract information. Next, a decryption section 481 decrypts the-ECM using the work key in order to obtain a scrambling key

Ksc. Also, the contract information obtained by the decryption section 482 is stored in a PPV data storage section 483." (Ezaki, par. [0172]).

There is nothing in this cited portion of Ezaki which discloses "generating a control word based on subscriber information." *Emphasis Added.*

Additionally, since there is no teaching of "a control word," Ezaki also fails to disclose "a scrambling means for scrambling the re-multiplexed signal by using the control word" as recited in the claims. While the Examiner alleges that Ezaki, paragraph [0092], discloses this element, this portion of Ezaki merely states:

"The CAS processing section 12 descrambles a scrambling process applied to broadcast content on the basis of a contract concerning CAS (Conditional Access System) exchanged with the content distributor. For digital broadcasting in Japan, a common scrambling method called "Multi2" is adopted for both BS and CS. However, since the CAS process itself is not related to the scope and spirit of the present invention, no further description is given here." (Ezaki, par. [0092])

There is no teaching of "a control word" or "scrambling by using the control word" in Ezaki. Examiner respectfully disagrees. Using the broadest reasonable interpretation of

"control word", the entitlement control message and entitlement management messages

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of Ezaki, represent types of control words. Ezaki teaches that the rights processing metadata contains use conditions and copy control information for decrypted content ([0075]). This rights processing metadata is contained in various EMM and ECMs which are used to control use of the data that is received ([0162]).

In response to applicant's arguments:

In the Office Action, the Examiner further alleges that the ECM and EMM in Ezaki represent types of control words (Office Action, page 6). Applicant respectfully submits that in the present invention, access control information including CAT, ECM and EMM is separate from the control word (See, for example, Specification, Figure 2, for further details). In order to clarify this aspect of the invention, independent claims 1, 7, and 13 have been amended to recite: "the access control information being separate from the control word." Accordingly, Applicant submits that the ECM and EMM cannot correspond to "the control word," as delineated in the claims because "the access control information" includes the ECM and EMM and "the access control information [is] separate from the control word."

Further, Ezaki merely discloses the rights processing metadata in Ezaki contains an ECM (Entitlement Control Message) and an EMM (Entitlement Management Message) (Ezaki, par. [0172]). In contrast, the claims recite "the access control information including CAT, entitlement control message (ECM) and entitlement management message (EMM)." *Emphasis*

*Added.* Given that there is no teaching in Ezaki of the rights processing metadata including CAT, the rights processing metadata cannot correspond to the "access control information."

Examiner respectfully disagrees. Ezaki discloses the rights processing metadata includes data other than the ECM and EMMs. The rights processing metadata can also include an RMP ID ([0160]) which can be interpreted to represent a "control word" which is used to identify data.

In response to applicant's arguments:



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In the Office Action, the Examiner admits that Ezaki and Levx fail to teach "the access control information including CAT, entitlement control message (ECM) and entitlement management message (EMM)" (.Office Action, page 4). However, the Examiner alleges that Akins teaches this element of the claims in Figure 7. Applicant respectfully submits that Akins merely discloses the packets in PID 1 705(c) having as their contents a conditional access table (CAT) 710, which lists the PIDs of other packets that contain EMMs (Akins, col. 19., lines 4-7; Figure 7). As illustrated in Figure 7, the PID 1 705(c) cannot be an access control information including CAT, ECM and EMM because the PID 1 705(c) merely includes the CAT. In other words, there is no teaching of an "access control information" that includes "CAT, ECM and EMM" because the CAT 710 merely lists the PIDs of other packets that contain EMMs such as EMM packet 705(d) (Akins, col. 19., lines 7-8; Figure 7) and the CAT 710 is not included in information which further includes ECM and EMM.

Examiner respectfully disagrees. Ezaki discloses the access control information, more specifically the ECM and the EMM ([0172]). While Ezaki does not specifically disclose the CAT information, Akins is used to disclose the CAT (fig. 7). The CAT can be considered access control information because it is responsible for informing the receiver of the location of EMM packets that are used to decrypt a stream.

In response to applicant's arguments:

Moreover, as admitted by the Examiner, Ezaki and Lev2~ fail to disclose, *inter alia*, "wherein the content ID is abstracted and used for determining whether a content is an unlawful broadcasting content when the broadcasting content is distributed unlawfully, or the content ID is abstracted and used for determining whether a content that are broadcasted currently is authentic or not after monitoring," as recited in independent claims 1, 7, and 13. However, the Examiner alleges that Akins teaches this element of the claims citing column 13, lines 18-40 (Office Action, page 4). Applicant respectfully disagrees and submits that nothing in the cited portions of Akins discloses, *inter alia*, a content ID being abstracted, as recited in the claims. Instead, the cited portion of Akins discloses the authentication of global broadcast messages with respect to ECMs and EMMs. More specifically, Akins, column 13, lines 18-40 merely states:

Examiner respectfully disagrees. Akins teaches that encryption and authentication techniques used in the global broadcast messages must permit rapid decryption and authenticity checking (col. 13 lines 18-40). The MSK and ECM are both used to determine the authenticity and lawfulness of a broadcasting content.

***Conclusion***

Claims 1-2, 5-8, 11-13 are rejected.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hyun J. Hong whose telephone number is (571)270-1553. The examiner can normally be reached on M-F (9:30a-7:00p).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hirl can be reached on (571)272-3685. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. J. H./  
Examiner, Art Unit 2426

/Joseph P. Hirl/  
Supervisory Patent Examiner, Art Unit 2426  
July 27, 2010